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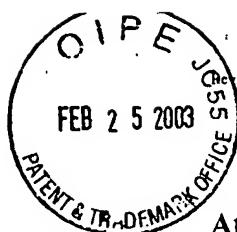
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Attorney Docket No. 8325-2001.30

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PATENT

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By: Diane Kizer
Diane Kizer

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of CHOO et al.

Serial No.: 10/033,129

Examiner: T. McKelvey

Confirmation No.: 1808

Art Unit: 1636

Filed: December 27, 2001

For: **BINDING PROTEINS FOR RECOGNITION OF DNA**

Commissioner for Patents
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT TRANSMITTAL

Enclosed is an Information Disclosure Statement and accompanying Form PTO/SB/08A for the above-identified patent application.

- In accordance with 37 C.F.R. §1.97(b), no additional fee for submission of the IDS is required.
- In accordance with 37 C.F.R. §1.97(c), also enclosed is:
 - the fee of \$180.00 as set forth in 37 C.F.R. §1.17(p); or
 - a statement as specified in 37 C.F.R. §1.97(e).
- In accordance with 37 C.F.R. §1.97(d), a statement as specified in 37 C.F.R. § 1.97(e) and the fee of \$180.00 as set forth in 37 C.F.R. §1.17(p) are also enclosed.
- Check No. _____ in the amount of \$ 180.00 for the total fee is attached.
- A return receipt postcard is also enclosed.



Rev. 03/09/2002

Attorney Docket No. 8325-0002.21

Serial No. 09/942,087

Page 2

Please charge \$__ to Deposit Account No. 03-3117 for the total fee. This paper is being submitted in duplicate.

The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §§1.16, 1.17, and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 03-3117.

Dated: 20 Feb 03

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Attorney Docket No. 8325-2001.30

PATENT

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By: 
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Commissioner for Patents
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.97(b)

In accordance with the duty of disclosure set forth in 37 C.F.R. §1.56, Applicant(s) hereby submits the following information in conformance with 37 C.F.R. §§1.97 and 1.98.

- Pursuant to 37 C.F.R. §1.98, a copy of each document cited in the attached Form PTO/SB/08 is enclosed.
- Enclosed is a copy of a non-English publication (EP 875 567). English language publication (6,160,091) (copy enclosed) claims priority from the same PCT application as this non-English publication.
- An explanation of non-English publication (WO 96/11267) for which an English translation is not available is as follows:

WO 96/11267 relates to a DNA sequence from the cervical carcinoma cell line E180 which encodes a zinc finger protein. WO 96/11267 discloses both the nucleic acid sequence and the encoded amino acid sequence of the zinc finger protein. Additionally, the reference relates to the use of the disclosed zinc finger protein in a diagnostic capacity. Specifically, the affinity of the disclosed zinc finger protein for a target DNA sequence is described. Applicants also direct the Examiner's attention to the English language abstract on the cover page of WO 96/11267.

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Attorney Docket No. 8325-2001.30

Serial No. 10/033,129

Page 2

- Enclosed is an English translation of non-English publication(s) ___ cited in the attached Form PTO/SB/08A.
- Enclosed is a copy of pending patent Application Serial No. ___.

This Information Disclosure Statement is filed after the period specified in 37 C.F.R. § 1.97(b), but before the mailing of:

- a notice of allowance under 37 C.F.R. §1.311.

In accordance with 37 C.F.R. §1.97(c) also enclosed is:

- Fee under 37 C.F.R. §1.17(p) in the amount of \$180.00.

It is respectfully requested that the Examiner consider the above-noted information and return an initialed copy of the attached Form PTO/SB/08A to the undersigned.

Dated: 20 Feb 03

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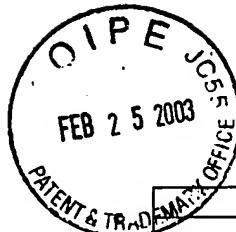
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INFORMATION DISCLOSURE CITATION PTO FORM 1449 FEB 28 2003 TECH CENTER 1600/2900				Attorney Docket No. G1-US3 (8325-2001.30)	U.S. Serial No. 10/033,129
				Applicant: CHOO et al.	
				Filing Date: December 27, 2001	
				Group Art Unit 1636	
U.S. PATENTS					
Ex'r Initials	Ref No.	Document No.	Date	Name	Class
	A-1	4,990,607	February 5, 1991	Katagiri et al.	
	A-2	5,096,814	March 17, 1992	Aivasidis et al.	
	A-3	5,096,815	March 17, 1992	Ladner et al.	
	A-4	5,198,346	March 30, 1993	Ladner et al.	
	A-5	5,223,409	June 29, 1993	Ladner et al.	
	A-6	5,243,041	September 7, 1993	Fernandez-Pol	
	A-7	5,302,519	April 12, 1994	Blackwood et al.	
	A-8	5,324,638	June 28, 1994	Tao et al.	
	A-9	5,324,818	June 28, 1994	Nabel et al.	
	A-10	5,324,819	June 28, 1994	Oppermann et al.	
	A-11	5,340,739	August 23, 1994	Stevens et al.	
	A-12	5,348,864	September 20, 1994	Barbacid et al.	
	A-13	5,350,840	September 27, 1994	Call et al.	
	A-14	5,356,802	October 18, 1994	Chandrasegaran	
	A-15	5,376,530	December 27, 1994	De The et al.	
	A-16	5,403,484	April 4, 1995	Ladner et al.	
	A-17	5,436,150	July 25, 1995	Chandrasegaran	
	A-18	5,487,994	January 30, 1996	Chandrasegaran	
	A-19	5,498,530	March 12, 1996	Schatz et al.	
	A-20	5,578,483	November 26, 1996	Evans et al.	
	A-21	5,597,693	January 28, 1997	Evans et al.	
	A-22	5,639,592	June 17, 1997	Abramson et al.	
	A-23	5,674,738	October 7, 1997	Abramson et al.	
	A-24	5,702,914	December 30, 1997	Evans et al.	
	A-25	5,789,538	August 4, 1998	Rebar et al.	
	A-26	5,792,640	August 11, 1998	Chandrasegaran	
	A-27	5,830,721	November 3, 1998	Stemmer et al.	
	A-28	5,869,618	February 9, 1999	Lippman et al.	
	A-29	5,871,902	February 16, 1999	Weininger et al.	
	A-30	5,871,907	February 16, 1999	Winter et al.	
	A-31	5,916,794	June 29, 1999	Chandrasegaran	
	A-32	5,939,538	August 17, 1999	Leavitt et al.	
	A-33	5,972,615	October 26, 1999	An et al.	
	A-34	6,001,885	December 14, 1999	Vega et al.	
	A-35	6,007,988	December 28, 1999	Choo et al.	
	A-36	6,013,453	January 11, 2000	Choo et al.	
	A-37	6,160,091	December 12, 2000	Peukart et al.	

FOREIGN PATENT DOCUMENTS

Ex'r Initials	Ref No.	Document No.	Published	Country	Class	Subclass	Translation YES NO
	B-1	WO 92/02536	February 20, 1992	PCT			
	B-2	WO 95/11922	May 4, 1995	PCT			
	B-3	WO 95/19431	July 20, 1995	PCT			
	B-4	WO 96/06110	February 29, 1996	PCT			

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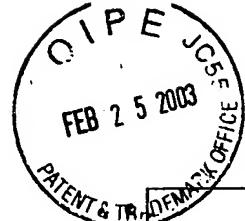
B-5	WO 96/06166	February 29, 1996	PCT			
B-6	WO 96/11267	April 18, 1996	PCT			
B-7	WO 96/20951	July 11, 1996	PCT			
B-8	WO 96/32475	October 17, 1996	PCT			
B-9	WO 97/27212	July 31, 1997	PCT			
B-10	WO 97/27213	July 31, 1997	PCT			
B-11	WO 98/53057	November 26, 1998	PCT			
B-12	WO 98/53058	November 26, 1998	PCT			
B-13	WO 98/53059	November 26, 1998	PCT			
B-14	WO 98/53060	November 26, 1998	PCT			
B-15	WO 98/54311	December 3, 1998	PCT			
B-16	WO 99/36553	July 22, 1999	PCT			
B-17	WO 99/41371	August 19, 1999	PCT			
B-18	WO 99/42474	August 26, 1999	PCT			
B-19	WO 99/45132	September 10, 1999	PCT			
B-20	WO 99/47656	September 23, 1999	PCT			
B-21	WO 99/48909	September 30, 1999	PCT			
B-22	WO 00/23464	April 27, 2000	PCT			
B-23	WO 00/27878	May 18, 2000	PCT			
B-24	WO 00/41566	July 20, 2000	PCT			
B-25	WO 00/42219	July 20, 2000	PCT			
B-26	EP 0 875 567	April 8, 1998	EPO			

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

Ex'r Initial	Ref. No.	Description
	C-1	Agarwal et al., "Stimulation of Transcript Elongation Requires Both the Zinc Finger and RNA Polymerase II Binding Domains of Human TFIIS," <i>Biochemistry</i> 30(31):7842-7851 (1991)
	C-2	Antao et al., "A Thermodynamic Study of Unusually Stable RNA and DNA Hairpins," <i>Nuc. Acids. Res.</i> 19(21):5901-5905 (1991)
	C-3	Barbas, C. F., "Recent Advances in Phage Display," <i>Curr. Opin. Biotech.</i> 4:526-530 (1993)
	C-4	Barbas et al., "Assembly of Combinatorial Antibody Libraries on Phage Surfaces: The Gene III Site," <i>PNAS</i> 88:7978-7982 (1991)
	C-5	Barbas et al., "Semisynthetic Combinatorial Antibody Libraries: A Chemical Solution to the Diversity Problem," <i>PNAS</i> 89:4457-4461 (1992)
	C-6	Beerli et al., "Toward Controlling Gene Expression at Will: Specific Regulation of the erbB-2/HER-2 Promoter by Using Polydactyl Zinc Finger Proteins Constructed From Modular Building Blocks," <i>Proc. Natl. Acad. Sci. U.S.A.</i> 95:14628-14633 (1998)
	C-7	Beerli et al., "Positive and negative regulation of endogenous genes by designed transcription factors," <i>Proc. Natl. Acad. Sci. U.S.A.</i> 97:1495-1500 (2000)
	C-8	Bellefroid et al., "Clustered Organization of Homologous KRAB Zinc-Finger Genes With Enhanced Expression in Human T Lymphoid Cells," <i>EMBO J.</i> 12(4):1363-1374 (1993)
	C-9	Berg, J.M., "DNA Binding Specificity of Steroid Receptors," <i>Cell</i> 57:1065-1068 (1989)
	C-10	Berg, J.M., "Sp1 and the Subfamily of Zinc-Finger Proteins with Guanine-Rich Binding Sites," <i>PNAS</i> 89:11109-11110 (1992)
	C-11	Berg et al., "The Galvanization of Biology: A Growing Appreciation for the Roles of Zinc," <i>Science</i> 271:1081-1085 (1996)
	C-12	Berg, J.M., "Letting Your Fingers do the Walking," <i>Nature Biotechnology</i> 15:323 (1997)
	C-13	Bergqvist et al., "Loss of DNA-binding and new Transcriptional Trans-Activation Function in Polyomavirus Large T-Antigen with Mutation of Zinc Finger Motif," <i>Nuc. Acids. Res.</i> 18(9):2715-2720 (1990)

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C-14	Blaese et al., "Vectors in Cancer Therapy: How Will They Deliver?," <i>Cancer Gene Therapy</i> 2(4):291-297 (1995)
C-15	Bonde et al., "Ontogeny of the v-erbA Oncoprotein from the Thyroid Hormone Receptor: An Alteration in the DNA Binding Domain Plays a Role Crucial for <i>verbA</i> Function," <i>J. Virology</i> 65(4):2037-2046 (1991)
C-16	Caponigro et al., "Transdominant Genetic Analysis of a Growth Control Pathway," <i>PNAS</i> 95:7508-7513 (1998)
C-17	Celenza et al., "A Yeast Gene That Is Essential for Release from Glucose Repression Encodes a Protein Kinase," <i>Science</i> 233:1175-1180 (1986)
C-18	Cheng et al., "Identification of Potential Target Genes for <i>Adrlp</i> through Characterization of Essential Nucleotides in <i>UAS1</i> ," <i>Mol. Cellular Biol.</i> 14(6):3842-3852 (1994)
C-19	Cheng et al., "A Single Amino Acid Substitution in Zinc Finger 2 of <i>Adrlp</i> Changes its Binding Specificity at two Positions in <i>UAS1</i> ," <i>J. Mol. Biol.</i> 251:1-8 (1995)
C-20	Choo et al., "A Role in DNA-Binding for the Linker Sequences of the First Three Zinc Fingers of <i>TFIIIA</i> <i>Nuc. Acids Res.</i> 21(15):3341-3346 (1993)
C-21	Choo et al., "Promoter-Specific Activation of Gene Expression Directed By Bacteriophage-Selected Zinc Fingers," <i>J. Mol. Biol.</i> 273:525-532 (1997)
C-22	Choo et al., "Designing DNA-Binding Proteins on the Surface of Filamentous Phage," <i>Curr. Opin. Biotechnology</i> 6:431-436 (1995);
C-23	Choo, Y., "Recognition of DNA Methylation by Zinc Fingers," <i>Nature Struct Biol.</i> 5(4):264-265 (1998)
C-24	Choo et al., "All Wrapped Up," <i>Nature Struct Biol</i> 5(4):253-255 (1998)
C-25	Choo, Y., "End Effects in DNA Recognition Code," <i>Nuc. Acids. Res.</i> 26(2):554-557 (1998)
C-26	Choo et al., "Physical Basis of Protein-DNA Recognition Code," <i>Curr. Opin. Struct. Biol.</i> 7(1):117-125 (1997)
C-27	Choo et al., "Toward a Code for the Interactions of Zinc Fingers With DNA: Selection of Randomized Fingers Displayed on Phage," <i>Proc. Natl. Acad. Sci. U.S.A.</i> 91:11163-11167 (1994)
C-28	Choo et al., "Selection of DNA Binding Sites for Zinc Fingers using Randomized DNAs reveals Coded Interactions," <i>Proc. Natl. Acad. Sci. U.S.A.</i> 91:11168-11172 (1994)
C-29	Choo et al., "In vivo Repression by a Site-Specific DNA-Binding Protein Designed against an Onogenic Sequence," <i>Nature</i> 372:642-645 (1994)
C-30	Clarke et al., "Zinc Fingers in <i>Caenorhabditis elegans</i> : Finding Families and Probing Pathways," <i>Science</i> 282:2018-2022 (1998)
C-31	Corbi et al., "Synthesis of a New Zinc Finger Peptide: Comparison of Its "Code" Deduced and "CASTing" Derived Binding Sites," <i>FEBS Letters</i> 417:71-74 (1997)
C-32	Crozatier et al., "Single Amino Acid Exchanges in Separate Domains of the <i>Drosophila</i> Serendipity Zinc Finger Protein Cause Embryonic and Sex Biased Lethality," <i>Genetics</i> 131:905-916 (1992)
C-33	Debs et al., "Regulation of Gene Expression in Vivo by Liposome-Mediated Delivery of a Purified Transcription Factor," <i>J. Biological Chemistry</i> 265(18):10189-10192 (1990)
C-34	DesJardins et al., "Repeated CT Elements Bound by Zinc Finger Proteins Control the Absolute and Relative Activities of the Two Principal Human C-myc Promoters," <i>Mol. Cell. Biol.</i> 13(9):5710-5724 (1993)
C-35	Desjarlais et al., "Redesigning the DNA-Binding Specificity of a Zinc Finger Protein: A Data Base-Guided Approach," <i>Proteins: Structure, Function, and Genetics</i> 12(2):101-104 (1992)
C-36	Desjarlais et al., "Redesigning the DNA-Binding Specificity of a Zinc Finger Protein: A Data Base-Guided Approach," <i>Proteins: Structure, Function, and Genetics</i> 13(3):272 (1992)
C-37	Desjarlais et al., "Toward Rules Relating Zinc Finger Protein Sequences and DNA Binding Site Preferences," <i>PNAS</i> 89:7345-7349 (1992)
C-38	Desjarlais et al., "Use of a Zinc-Finger Consensus Sequence Framework and Specificity Rules to Design Specific DNA Binding, Proteins," <i>PNAS</i> 90:2256-2260 (1993)
C-39	Desjarlais et al., "Length-Encoded Multiplex binding Site Determination: Application to Zinc Finger Proteins," <i>PNAS</i> 91:11099-11103 (1994)

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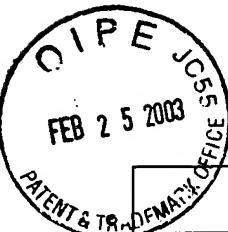
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Attorney Docket No.8325-2001.30

USSN 10/033,129

Page 4 of 8

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	C-40	Dibello et al., "The Drosophila Broad-Complex Encodes a Family of Related Proteins Containing Zinc Fingers," <i>Genetics</i> 129:385-397 (1991)	TECH CENTER 1600/2900
	C-41	Donze et al., "Activation of delta-globin gene expression by erythroid Kruppel-like factor: a potential approach for gene therapy of sickle cell disease," <i>Blood</i> 88:4051-4057 (1996)	
	C-42	Elrod-Erickson et al., "High-Resolution Structures of Variant Zif268-DNA Complexes: Implications for Understanding Zinc Finger-DNA Recognition," <i>Structure</i> 6(4):451-464 (1998)	
	C-43	Elrod-Erickson et al., "Zif268 Protein-DNA Complex Refined at 1.6: a Model System for Understanding Zinc Finger-DNA Interactions," <i>Structure</i> 4(10):1171-1180 (1996)	
	C-44	Fairall et al., "The Crystal Structure of a Two Zinc-Finger Peptide Reveals an Extension to the Rules for Zinc-Finger /DNA Recognition," <i>Nature</i> 366:483-487 (1993)	
	C-45	Frankel et al., "Fingering Too Many Proteins," <i>Cell</i> 53:675 (1988)	
	C-46	Friesen et al., "Phage Display of RNA Binding Zinc Fingers from Transcription Factor IIA," <i>J. Biological Chem.</i> 272(17):10994-10997 (1997)	
	C-47	Friesen et al., "Specific RNA Binding Proteins Constructed from Zinc Fingers," <i>Nature Structural Biology</i> 5(7):543-546 (1998)	
	C-48	Ghosh "A relational database of transcription factors," <i>Nucleic Acids Res</i> 18:1749-1756 (1990)	
	C-49	Gillemans et al., "Altered DNA Binding Specificity Mutants of EKLF and Spi Show that EKLF is an Activator of the b-Globin Locus Control Region <i>in vivo</i> ," <i>Genes and Development</i> 12:2863-2873 (1998)	
	C-50	Gogos et al., "Recognition of Diverse Sequences by Class I Zinc Fingers: Asymmetries and Indirect Effects on Specificity in the Interaction Between CF2II and A+T-Rich Sequences Elements," <i>PNAS</i> 93(5):2159-2164 (1996)	
	C-51	Gossen et al., "Tight Control of Gene Expression in Mammalian Cells by Tetracycline-Responsive Promoter," <i>PNAS</i> 89:5547-5551 (1992)	
	C-52	Greisman & Pabo, "A General Strategy for Selecting High-Affinity Zinc Finger Proteins for Diverse DNA Target Sites," <i>Science</i> 275:657-661 (1997)	
	C-53	Hall et al., "Functional Interaction Between the Two Zinc Finger Domains of the V-erbA Oncoprotein," <i>Cell Growth & Differentiation</i> 3:207-216 (1992)	
	C-54	Hamilton et al., "High Affinity Binding Sites for the Wilms' Tumor Suppressor Protein WT1," <i>Nuc. Acids. Res.</i> 23(2):277-284 (1995)	
	C-55	Hamilton et al., "Comparison of the DNA Binding Characteristics of the Related Zinc Finger Proteins WT1 and EGR1," <i>Biochemistry</i> 37:2051-2058 (1998)	
	C-56	Hanas et al., "Internal Deletion Mutants of <i>Xenopus</i> Transcription Factor IIIA," <i>Nuc. Acids. Res.</i> 17(23):9861-9870 (1989)	
	C-57	Hayes et al., "Locations of Contacts Between Individual Zinc Fingers <i>Xenopus laevis</i> Transcription Factor IIIA and the Internal Control Region of a 5S RNA Gene," <i>Biochemistry</i> 31:11600-11605 (1992)	
	C-58	Heinzel et al., "A Complex containing N-CoR, MSin3 and Histone Deacetylase Mediates Transcriptional Repression," <i>Nature</i> 387:43-48 (1997)	
	C-59	Hirst et al., "Discrimination of DNA Response Elements for Thyroid Hormone and Estrogen is Dependent on Dimerization of Receptor DNA Binding Domains," <i>PNAS</i> 89:5527-5531 (1992)	
	C-60	Hoffman et al., "Structures of DNA-Binding Mutant Zinc Finger Domains: Implications for DNA Binding," <i>Protein Science</i> 2:951-965 (1993)	
	C-61	Imhof et al., "Transcriptional Regulation of the AP-2alpha Promoter by BTEB-1 and AP-2REP, a Novel WT-1/EGR-Related Zinc Finger Repressor," <i>Molecular and Cellular Biology</i> 19(1):194-204 (1999)	
	C-62	Isalan et al., "Synergy Between Adjacent Zinc Fingers in Sequence-Specific DNA Recognition," <i>PNAS</i> 94(11):5617-5621 (1997)	
	C-63	Isalan et al., "Comprehensive DNA Recognition Through Concerted Interactions from Adjacent Zinc Fingers," <i>Biochemistry</i> 37:12026-12033 (1998)	
	C-64	Jacobs, G.H., "Determination of the Base Recognition Positions of Zinc Fingers From Sequence Analysis," <i>EMBO J.</i> 11(12):4507-4517 (1992)	

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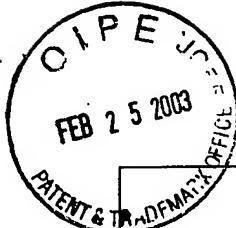
	C-65	Jamieson et al. "A Zinc Finger Directory for High-Affinity DNA Recognition," <i>PNAS</i> <u>93</u> :12834-12839 (1996)
	C-66	Jamieson et al., "In Vitro Selection of Zinc Fingers with Altered DNA-Binding Specificity" <i>Biochemistry</i> <u>33</u> :5689-5695 (1994)
	C-67	Jones et al., "Replacing the complementarity-determining regions in a human antibody with those from a mouse" <i>Nature</i> <u>321</u> :522-525 (1986)
	C-68	Julian et al., "Replacement of His23 by Cys in a Zinc Finger of HIV-1NCp7 Led to a Change in 1H NMR-Derived 3D Structure and to a Loss of Biological Activity," <i>FEBS Letters</i> <u>331</u> (1,2):43-48 (1993)
	C-69	Kamiuchi et al., "New Multi Zinc Finger Protein: Biosynthetic Design and Characteristics of DNA Recognition," <i>Nucleic Acids Symposium Series</i> <u>37</u> :153-154 (1997)
	C-70	Kang et al., "Zinc Finger Proteins as Designer Transcription Factors," <i>J. Biol. Chem.</i> <u>275</u> (12):8742-8748 (2000)
	C-71	Kim et al., "Serine at Position 2 in the DNA Recognition Helix of a Cys2-His2 Zinc Finger Peptide is Not, in General, Responsible for Base Recognition," <i>J. Mol. Biol.</i> <u>252</u> :1-5 (1995)
	C-72	Kim et al., "Site-Specific Cleavage of DNA-RNA Hybrids by Zinc Finger/FokI Cleavage Domain Fusions," <i>Gene</i> <u>203</u> :43-49 (1997)
	C-73	Kim et al., "A 2.2 Å Resolution Crystal Structure of a Designed Zinc Finger Protein Bound to DNA," <i>Nat. Struct. Biol.</i> <u>3</u> (11):940-945 (1996)
	C-74	Kim et al., "Design of TATA Box-Binding Protein/Zinc Finger Fusions for Targeted Regulation of Gene Expression," <i>PNAS</i> <u>94</u> :3616-3620 (1997)
	C-75	Kim et al., "Hybrid Restriction Enzymes: Zinc Finger Fusions Fok I Cleavage Domain," <i>PNAS</i> <u>93</u> :1156-1160 (1996)
	C-76	Kim et al. "Transcriptional repression by zinc finger peptides. Exploring the potential for applications in gene therapy" <i>J. Biol. Chem.</i> <u>272</u> :29795-29800 (1997)
	C-77	Kim et al. "Getting a handhold on DNA: design of poly-zinc finger proteins with femtomolar dissociation constants" <i>Proc. Natl. Acad. Sci. USA</i> <u>95</u> :2812-2817 (1998)
	C-78	Kinzler et al., "The GLI Gene is Member of the Kruppel Family of Zinc Finger Proteins," <i>Nature</i> <u>332</u> :371-374 (1988)
	C-79	Klug, A., "Gene Regulatory Proteins and Their Interaction with DNA," <i>Ann. NY Acad. Sci.</i> <u>758</u> :143-160 (1995)
	C-80	Klug et al., "Protein Motifs 5: Zinc Fingers," <i>FASEB J.</i> <u>9</u> :597-604 (1995)
	C-81	Klug, "Zinc Finger Peptides for the Regulation of Gene Expression," <i>J. Mol. Biol.</i> <u>293</u> :215-218 (1999)
	C-82	Kothekar, "Computer Simulation of Zinc Finger Motif from Cellular Nucleic Acid Binding Proteins and Their Interaction with Consensus DNA Sequences," <i>FEBS Letters</i> <u>274</u> (1,2):217-222 (1990)
	C-83	Kriwacki et al. "Sequence-specific recognition of DNA by zinc finger peptides derived from the transcription factor Sp-1," <i>Proc. Natl. Acad. Sci. USA</i> <u>89</u> :9759-9763 (1992)
	C-84	Kudla et al., "The Regulatory Gene <i>areA</i> Mediating Nitrogen Metabolite R in <i>Aspergillus nidulans</i> Mutations Affecting Specificity of Gene Activation Alter a Loop Residue of Putative Zinc Finger," <i>EMBO J.</i> <u>9</u> (5):1355-1364 (1990)
	C-85	Laird-Offringa et al., "RNA-Binding Proteins Tamed," <i>Nat. Structural Biol.</i> <u>5</u> (8):665-668 (1998)
	C-86	Liu et al., "Design of Polydactyl Zinc-Finger Proteins for Unique Addressing Within Complex Genomes," <i>Proc. Natl. Acad. Sci. U.S.A.</i> <u>94</u> :5525-5530 (1997)
	C-87	Liu et al., "Transcription Factor EGR-1 Suppresses the Growth and Transformation of Human HT-1080 Fibrosarcoma Cells by Induction of Transforming Growth Factor Beta 1," <i>Proc. Natl. Acad. Sci. U.S.A.</i> <u>93</u> (21):11831-11836 (1996)
	C-88	Liu et al., "Regulation of an Endogenous Locus Using a Panel of Designed Zinc Finger Proteins Targeted to Accessible Chromatin Regions: Activation of Vascular Endothelial Growth Factor A," <i>Journal of Biological Chemistry</i> <u>276</u> (14):11323-11334 (2001)
	C-89	Mandel-Gutfreund et al., "Quantitative Parameters for Amino Acid-Base Interaction: Implication for Prediction of Protein-DNA Binding Sites," <i>Nuc. Acids Res.</i> <u>26</u> (10):2306-2312 (1998)

Examiner: _____ Date: _____
 Please initial reference if considered, whether or not the citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



C-90	Margolin et al., "Kruppel-Associated Boxes are Potent Transcriptional Repression Domains," <i>PNAS</i> 91:4509-4513 (1994)
C-91	Mizushima et al., "pEF-BOS, a Powerful Mammalian Expression Vector," <i>Nuc. Acids. Res.</i> 18(17):5322 (1990)
C-92	Mukhopadhyay et al. "The von Hippel-lindau Tumor Suppressor Gene Product Interacts with Sp1 to Repress Vascular Endothelial Growth Factor Promoter Activity" <i>Mol. Cell. Biol.</i> 17(9):5629-5639 (1997)
C-93	Nakagama et al., "Sequence and Structural Requirements for High-Affinity DNA Binding by the WT1 Gene Product," <i>Molecular and Cellular Biology</i> 15(3):1489-1498 (1995)
C-94	Nardelli et al., "Zinc Finger-DNA Recognition: Analysis of Base Specificity by Site-Directed Mutagenesis," <i>Nucleic Acids Research</i> 20(16):4137-4144 (1992)
C-95	Nardelli et al., "Base Sequence Discrimination by Zinc-Finger DNA-Binding Domains," <i>Nature</i> 349:175-178 (1991)
C-96	Nekludova et al., "Distinctive DNA Conformation With Enlarged Major Groove is Found in Zn-Finger-DNA and Other Protein-DNA Complexes," <i>PNAS</i> 91:6948-6952 (1994)
C-97	Orkin et al., "Report and Recommendations of the Panel to Assess the NIH Investment in Research on Gene Therapy," (December 7, 1995)
C-98	Pabo et al., "Systematic Analysis of Possible Hydrogen Bonds between Amino Acid Side Chains and B-form DNA," <i>J. Biomolecular Struct. Dynamic</i> 1:1039-1049 (1983)
C-99	Pabo et al., "Protein-DNA Recognition," <i>Ann. Rev. Biochem.</i> 53 :293-321 (1984)
C-100	Pabo, C. O., "Transcription Factors: Structural Families and Principles of DNA Recognition," <i>Ann. Rev. Biochem.</i> 61:1053-1095 (1992)
C-101	Pavletich et al., "Crystal Structure of a Five-Finger GLI-DNA Complex: New Perspectives on Zinc Fingers," <i>Science</i> , 261:1701-1707 (1993)
C-102	Pavletich et al., "Zinc Finger-DNA Recognition: Crystal Structure of a Zif268-DNA Complex at 2.1 Å," <i>Science</i> 252:809-817 (1991)
C-103	Pengue et al., "Repression of Transcriptional Activity at a Distance by the Evolutionarily Conserved KRAB Domain Present in a Subfamily of Zinc Finger Proteins," <i>Nuc. Acids Res.</i> 22(15):2908-2914 (1994)
C-104	Pengue et al., "Transcriptional Silencing of Human Immunodeficiency Virus Type I Long Terminal Repeat-Driven Gene Expression by the Kruppel-Associated Box Repressor Domain Targeted to the Transactivating Response Element," <i>J. Virology</i> 69(10):6577-6580 (1995)
C-105	Pengue et al., "Kruppel-Associated Box-Mediated Repression of RNA Polymerase II Promoters is Influenced by the Arrangement of Basal Promoter Elements," <i>PNAS</i> 93:1015-1020 (1996)
C-106	Pomerantz et al., "Analysis of Homeodomain Function by Structure-Based Design of a Transcription Factor," <i>PNAS</i> 92:9752-9756 (1995)
C-107	Pomerantz et al., "Structure-Based Design of a Dimeric Zinc Finger Protein," <i>Biochemistry</i> 37(4):965-970 (1998)
C-108	Pomerantz et al., "Structure-Based Design of Transcription Factors," <i>Science</i> 267:93-96 (1995)
C-109	Qian et al., "Two-Dimensional NMR Studies of the Zinc Finger Motif: Solution Structures and Dynamics of Mutant ZFY Domains Containing Aromatic Substitutions in the Hydrophobic Core," <i>Biochemistry</i> 31:7463-7476 (1992)
C-110	Quigley et al., "Complete Androgen Insensitivity Due to Deletion of Exon C of the Androgen Receptor Gene Highlights the Functional Importance of the Second Zinc Finger of the Androgen Receptor <i>in Vivo</i> ," <i>Molecular Endocrinology</i> 6(7):1103-1112 (1992)
C-111	Rauscher et al., "Binding of the Wilms' Tumor Locus Zinc Finger Protein to the EGR- I Consensus Sequence," <i>Science</i> 250:1259-1262 (1990)
C-112	Ray et al., "Repressor to Activator Switch by Mutations in the First Zn Finger of the Glucocorticoid Receptor: Is Direct DNA Binding Necessary?," <i>PNAS</i> 88:7086-7090 (1991)
C-113	Rebar et al., "Phage Display Methods for Selecting Zinc Finger Proteins with Novel DNA-Binding Specificities," <i>Methods in Enzymology</i> 267:129-149 (1996)

Examiner: _____ Date: _____
 Please initial reference if considered, whether or not the citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



C-114	Rebar et al., "Zinc Finger Phage: Affinity Selection of Fingers With New DNA-Binding Specificities," <i>Science</i> 263:671-673 (1994)
C-115	Reith et al., "Cloning of the Major Histocompatibility Complex Class II Promoter Binding Protein Affected in a Hereditary Defect in Class II Gene Regulation," <i>PNAS</i> 86:4200-4204 (1989)
C-116	Rhodes et al., "Zinc Fingers: They Play a Key Part in Regulating the Activity of Genes in Many Species, From Yeast to Humans. Fewer Than 10 Years Ago No One Knew They Existed." <i>Scientific American</i> 268:56-65 (1993)
C-117	Rice et al., "Inhibitors of HIV Nucleocapsid Protein Zinc Fingers as Candidates for the Treatment of AIDS," <i>Science</i> 270:1194-1197 (1995)
C-118	Rivera et al., "A Humanized System for Pharmacologic Control of Gene Expression," <i>Nature Medicine</i> 2(9):1028--1032 (1996)
C-119	Rollins et al., "Role of TFIIIA Zinc Fingers <i>In vivo</i> : Analysis of Single-Finger Function in Developing <i>Xenopus</i> Embryos," <i>Molecular Cellular Biology</i> 13(8):4776-4783 (1993)
C-120	Sadowski et al., "GAL4-VP16 is an unusually potent transcriptional activator," <i>Nature</i> 335:563-568 (1988)
C-121	Saleh et al., "A Novel Zinc Finger Gene on Human Chromosome 1 qter That is Alternatively Spliced in Human Tissues and Cell Lines," <i>American Journal of Human Genetics</i> 52:192-203 (1993)
C-122	Shi et al., "Specific DNA-RNA Hybrid Binding by Zinc Finger Proteins," <i>Science</i> 268:282-284 (1995)
C-123	Shi et al., "DNA Unwinding Induced by Zinc Finger Protein Binding," <i>Biochemistry</i> 35:3845-3848 (1996)
C-124	Shi et al., "A Direct Comparison of the Properties of Natural and Designed Finger Proteins," <i>Chem. & Biol.</i> 2(2):83-89 (1995)
C-125	Singh et al., "Molecular Cloning of an Enhancer Binding Protein: Isolation by Screening of an Expression Library with a Recognition Site DNA," <i>Cell</i> 52:415-423 (1988)
C-126	Skerka et al., "Coordinate Expression and Distinct DNA-Binding Characteristics of the Four EGR-Zinc Finger Proteins in Jurkat T Lymphocytes," <i>Immunobiology</i> 198:179-191 (1997)
C-127	South et al., "The Nucleocapsid Protein Isolated from HIV-1 Particles Binds Zinc and Forms Retroviral-Type Zinc Fingers," <i>Biochemistry</i> 29:7786-7789 (1990)
C-128	Spengler et al., "Regulation of Apoptosis and Cell Cycle Arrest by ZZC1, A Novel Zinc finger Protein Expressed in the Pituitary Gland and the Brain," <i>EMBO J.</i> 16(10):2814-2825 (1997)
C-129	Suzuki et al., "Stereochemical Basis of DNA Recognition by Zn Fingers," <i>Nuc. Acids Res.</i> 22(16):3397-3405 (1994)
C-130	Suzuki et al. "DNA Recognition Code of Transcription Factors in the Helix-turn-Helix, Probe Helix, Hormone Receptor, and Zinc Finger Families," <i>PNAS</i> 91:12357-12361 (1994)
C-131	Swirnoff et al., "DNA-Binding Specificity of NGFI-A and Related Zinc Finger Transcription Factors," <i>Mol. Cell. Biol.</i> 15 (4):2275-2287 (1995)
C-132	Taylor et al., "Designing Zinc-Finger ADRI Mutants with Altered Specificity of DNA Binding to T in UASI Sequences," <i>Biochemistry</i> 34:3222-3230 (1995)
C-133	Thiesen et al., "Determination of DNA Binding Specificities of Mutated Zinc Finger Domains," <i>FEBS Letters</i> 283(I):23-26 (1991)
C-134	Thiesen et al., "Amino Acid Substitutions in the SP1 Zinc Finger Domain Alter the DNA Binding Affinity to Cognate SP1 Target Site," <i>Biochem. Biophys. Res. Communications</i> 175(I):333-338 (1991)
C-135	Thiesen, H. J., "From Repression Domains to Designer Zinc Finger Proteins: A Novel Strategy for Intracellular Immunization Against HIV," <i>Gene Expression</i> 5:229-243 (1996)
C-136	Thukral et al., "Localization of a Minimal Binding Domain and Activation Regions in Yeast Regulatory Protein ADRI1," <i>Molecular Cellular Biology</i> 9(6):2360-2369 (1989)
C-137	Thukral et al., "Two Monomers of Yeast Transcription Factor ADR1 Bind a Paldromic Sequence Symmetrically to Activate ADH2 Expression," <i>Molecular Cellular Biol.</i> 11(3):1566-1577 (1991)
C-138	Thukral et al., "Alanine Scanning Site-Directed Mutagenesis of the Zinc Fingers of Transcription Factor ADR1: Residues that Contact DNA and that Transactivate," <i>PNAS</i> 88:9188-9192 (1991), + correction page

Examiner: _____ Date: _____

Please initial reference if considered, whether or not the citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



	C-139	Thukral et al., "Mutations in the Zinc Fingers of ADR1 That Change the Specificity of DNA Binding and Transactivation," <i>Mol. Cell Biol.</i> 12(6):2784-2792 (1992)
	C-140	Vortkamp et al., "Identification of Optimized Target Sequences for the GL13 Zinc Finger Protein," <i>DNA Cell Biol.</i> 14(7):629-634 (1995)
	C-141	Wang et al., "Dimerization of Zinc Fingers Mediated by Peptides Evolved <i>In Vitro</i> From Random Sequences," <i>Proc. Natl. Acad. Sci. U.S.A.</i> 96:9568-9573 (1999)
	C-142	Webster et al., "Conversion of the E1A Cys4 Zinc Finger to a Nonfunctional His2, Cys2 Zinc Finger by a Single Point Mutation," <i>PNAS</i> 88:9989-9993 (1991)
	C-143	Whyatt et al., "The Two Zinc Finger-Like Domains of GATA-1 Have Different DNA Binding Specificities," <i>EMBO J.</i> 12(13):4993-5005 (1993)
	C-144	Wilson et al., "In Vivo Mutational Analysis of the NGFI-A Zinc Fingers," <i>J. Biol. Chem.</i> 267(6):3718-3724 (1992)
	C-145	Witzgall et al., "The Kruppel-Associated Box-A (KRAB-A) Domain of Zinc Finger Proteins Mediates Transcriptional Repression" <i>PNAS</i> 91:4514-4518 (1994)
	C-146	Wolfe et al., Analysis of Zinc Fingers Optimized Via Phage Display: Evaluating the Utility of a Recognition Code," <i>J. Mol. Biol.</i> 285:1917-1934 (1999)
	C-147	Wright et al., "Expression of a Zinc Finger Gene in HTLV-1 and HTLV-II Transformed Cells," <i>Science</i> 248:588-591 (1990)
	C-148	Wu et al., "Building Zinc Fingers by Selection: Toward a Therapeutic Application," <i>PNAS</i> 92:344-348 (1995)
	C-149	Wu et al., "Human Immunodeficiency Virus Type 1 Nucleocapsid Protein Reduces Reverse Transcriptase Pausing at a Secondary Structure near the Murine Leukemia Virus Polypurine Tract" <i>J. Virol.</i> 70(10):7132-7142 (1996)
	C-150	Yang et al., "Surface Plasmon Resonance Based Kinetic Studies of Zinc Finger-DNA Interaction," <i>J. Immunol. Methods</i> 183:175-182 (1995)
	C-151	Yu et al., "A Hairpin Ribozyme Inhibits Expression of Diverse Strains of Human Immunodeficiency Virus Type 1," <i>PNAS</i> 90:6340-6344 (1993)
	C-152	Zhang et al., "Synthetic Zinc Finger Transcription Factor Action at an Endogenous Chromosomal Site. Activation of the Human Erythropoietin Gene," <i>Journal of Biological Chemistry</i> 275(43):33850-33860 (2000)
	C-153	Search of Swissprot. Data Base Performed CA August 2000

Examiner: _____ Date: _____

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